REMARKS

Claims 15-41 are pending in the present application. Claim 19 has been amended to correct a typographic error.

Reexamination of the application and reconsideration of the rejections and objections are respectfully requested in view of the above amendments and the following remarks, which follow the order set forth in the Office Action.

Examiner Interview

Applicants sincerely thank Examiner Neil S. Levy for the helpful telephonic interview conducted on August 31, 2010, between the Examiner, Allen Baum and the undersigned attorney. During the interview, the disclosure of *Muller* and *Buntain* references were discussed.

Rejections under 35 U.S.C. §112

The Office Action rejected claim 19 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the claim. Applicants traverse the rejection.

Amended claim 19 now depends from claim 18, rendering the rejection moot. Applicants respectfully request withdrawal of the rejection.

Rejections under 35 U.S.C. § 103 Over Muller and Buntain

The Office Action rejected claims 15-17, 20, 33-40 under 35 U.S.C. §103(a) for being obvious over U.S. Patent No. 5,869,517 ("Muller") and EP 0295117 ("Buntain"). Applicants traverse the rejection.

Claim 15 of the present application is directed to a mixture for crop protection, comprising a carbamate derivative of the formula I and at least one compound of the formulae II. Compounds of formula II are insecticides. According to the Office Action, *Muller* discloses a species of the genus of compounds of formula I. Further, *Muller* states that

> The compounds I, on their own or in combination with herbicides or fungicides, can also be applied jointly mixed with ***further crop protection agents***, for example with growth regulators or with agents for controlling pests or bacteria.

Muller, col. 34, lines 36-38 (emphasis added). *Muller* specifically discloses 574 compounds (see Tables A and B) including species of the compounds of formula I recited in the claims of the present application. *Muller* also provides a laundry list of fungicides that *Muller*

patentees considered "***further crop protection agents***" for combining with *Muller* compounds. According to *Muller*:

> ***The crop protection agents*** and fertilizers can be added to the compositions according to the invention in a weight ratio of from 1:10 to 10:1, if appropriate even immediately before use (tank mix). On mixing with fungicides or insecticides, in many cases an increase in the fungicidal spectrum of action is obtained here.
>
> The following list of fungicides with which the compounds according to the invention can be applied together is intended to illustrate the combination possibilities, but not restrict them:
>
> sulfur, dithiocarbamates and their derivatives, such as ferric dimethyldithiocarbamate, zinc dimethyldithiocarbamate, zinc ethylenebisdithiocarbamate, manganese ethylenebisdithiocarbamate, manganese zinc ethylenediamine bisdithiocarbamate, tetramethylthiuram disulfide, ammonia complex of zinc N,N-ethylenebisdithiocarbamate, ammonia complex of zinc N,N'-propylenebisdithiocarbamate, zinc N,N'-propylenebisdithiocarbamate, N,N'-polypropylenebis(thiocarbamoyl) disulfide; nitro derivatives, such as dinitro(1-methylheptyl)phenyl crotonate, 2-sec-butyl-4,6-dinitrophenyl 3,3-dimethylacrylate, 2-sec-butyl-4,6-dinitrophenyl isopropyl carbonate, diisopropyl 5-nitroisophthalate;
>
> heterocyclic substances, such as 2-heptadecyl-2-imidazoline acetate, 2,4-dichloro-6-(o-chloroanilino)-s-triazine, O,O-diethyl phthalimidophosphonothioate, 5-amino-1-.beta.-[bis-(dimethylamino)-phosphinyl]-3-phenyl-1,2,4-triazole, 2,3-dicyano-1,4-dithioanthraquinone, 2-thio-1,3-dithiolo-.beta.-[4,5-b]quinoxaline, methyl 1-(butylcarbamoyl)-2-benzimidazolecarbamate, 2-methoxycarbonylaminobenzimidazole, 2-(fur-2-yl)benzimidazole, 2-(thiazol-4-yl)benzimidazole, N-(1,1,2,2-tetrachloroethylthio)tetrahydrophthalimide, N-trichloromethylthio-tetrahydrophthalimide, N-trichloromethylthiophthalimide, N-dichlorofluoromethylthio-N',N'-dimethyl-N-phenylsulfamide, 5-ethoxy-3-trichloromethyl-1,2,3-thiadiazole, 2-thiocyanatomethylthio-benzothiazole, 1,4-dichloro-2,5-dimethoxybenzene, 4-(2-chlorophenylhydrazono)-3-methyl-5-isoxazolone, 2-thiopyridine-1-oxide, 8-hydroxyquinoline or its copper salt, 2,3-dihydro-5-carboxanilido-6-methyl-1,4-oxathiin, 2,3-dihydro-5-carboxanilido-6-methyl-1,4-oxathiin-4,4-dioxide, 2-methyl-5,6-dihydro-4H-pyran-3-carboxanilide, 2-methylfuran-3-carboxanilide, 2,5-dimethylfuran-3-carboxanilide, 2,4,5-trimethylfuran-3-carboxanilide, N-cyclohexyl-2,5-dimethylfuran-3-carboxamide, N-cyclohexyl-N-methoxy-2,5-dimethylfuran-3-carboxamide, 2-methylbenz.sup.a nilide, 2-iodobenz.sup.a nilide, N-formyl-N-morpholine-2,2,2-trichloroethyl acetal, piperazine-1,4-diylbis(1-(2,2,2-trichloroethyl))formamide, 1-(3,4-dichloroanilino)-1-formylamino-2,2,2-trichloroethane, 2,6-dimethyl-N-tridecylmorpholine or its salts, 2,6-dimethyl-N-cyclododecylmorpholine or its salts, N-[3-(p-tert-butylphenyl)-2-methylpropyl]-cis-2,6-dimethylmorpholine, N-[3-(p-tert-

> butylphenyl)-2-methylpropyl]piperidine, 1-[2-(2,4-dichlorophenyl)-4-ethyl-1,3-dioxolan-2-ylethyl]-1H-1,2,4-triazol e, 1-[2-(2,4-dichlorophenyl)-4-n-propyl-1,3-dioxolan-2-yl-ethyl]-1H-1,2,4-triazole, N-(n-propyl)-N-(2,4,6-trichlorophenoxy-ethyl)-N'-imidazolylurea, 1-(4-chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanone, 1-(4-chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanol, .alpha.-(2-chlorophenyl)-.alpha.-(4-chlorophenyl)-5-pyrimidinemethanol, 5-butyl-2-dimethylamino-4-hydroxy-6-methylpyrimidine, bis(p-chlorophenyl)-3-pyridinemethanol, 1,2-bis(3-ethoxycarbonyl-2-thioureido)benzene, 1,2-bis(3-methoxycarbonyl-2-thioureido)benzene,
>
> and also various fungicides, such as dodecylguanidine acetate, 3-[3-(3,5-dimethyl-2-oxycyclohexyl)-2-hydroxyethyl]glutarimide, hexachlorobenzene, DL-methyl-N-(2,6-dimethylphenyl)-N-2-furoyl alaninate, DL-N-(2,6-dimethylphenyl)-N-(2'-methoxyacetyl)alanine methyl ester, N-(2,6-dimethylphenyl)-N-chloroacetyl-D,L-2-amino-butyrolactone, DL-N-(2,6-dimethylphenyl)-N-(phenylacetyl)alanine methyl ester, 5-methyl-5-vinyl-3-(3,5-dichlorophenyl)-2,4-dioxo-1,3-oxazolidine, 3-(3,5-dichlorophenyl)-5-methyl-5-methoxymethyl-1,3-oxazolidine-2,4-dione, 3-(3,5-dichlorophenyl)-1-isopropylcarbamoylhydantoin, N-(3,5-dichlorophenyl)-1,2-dimethylcyclopropane-1,2-dicarboximide, 2-cyano-[N-ethylaminocarbonyl-2-methoximino]acetamide, 1-[2-(2,4-dichlorophenyl)pentyl]-1H-1,2,4-triazole, 2,4-difluoro-.alpha.-(1H-1,2,4-triazolyl-1-methyl)benzhydryl alcohol, N-(3-chloro-2,6-dinitro-4-trifluoromethylphenyl)-5-trifluoromethyl-3-chlor o-2-aminopyridine, 1-((bis(4-fluorophenyl)methylsilyl)methyl)-1H-1,2,4-pyrazole.

Muller, col. 34, line 49 to col. 36, line 2. The above quoted list includes at least 77 fungicides (not counting their salts) that *Muller* considered as ***further crop protection agents*** that should be combined with *Muller* compounds. As such, of the possible more than 44,000 binary mixture that can be prepared by combining *Muller* compounds with the ***further crop protection agents***, none contains a mixture that falls within the scope of the present application because none of the *Muller* compounds or the ***further crop protection agents*** has any structural relationship to the compounds of formula II, the insecticides recited in the mixtures of present application. *Muller* does not provide a reason why any of the *Muller* compounds should be combined with an insecticide, much less the particular insecticides that are recited in the claims of the present application (i.e., compounds of formula II). Thus, *Muller* does not render the claims of the present application obvious.

With regard to combining the *Buntain* compounds with other compounds, the reference provides:

> Examples of other pesticidally-active compounds which may be included in, or used in conjunction with, the compositions of the present invention are:-
> acephate, chlorpyrifos, demeton-S-methyl, disulfoton, ethoprofos, fenitrothion, malathion, monocrotophos, parathion, phosalone, pirimiphos-methyl, triazophos, cyfluthrin, cypermethrin, deltamethrin, fenpropathrin, fenvalerate, permethrin, aldicarb, carbosulfan, methomyl, oxamyl, pirimicarb, bendiocarb, teflubenzuron, dicofol, endosulfan, lindane, benzoximate, cartap, cyhexatin, tetradifon, avermectins, ivermectin, milbemycins, thiophanate, trichlorfon, dichlorvos, diaveridine and dimetridazole.

Buntain, pages 7-8. None of the compounds listed above for combining with the *Buntain* compounds has any structural relationship to the compounds recited in the claims of the present application. Indeed, *Buntain* at best suggests combining the 101 specifically named *Buntain* compounds with the 40 compounds listed in the passage above. None of the 4000+ binary mixtures so obtained is encompassed by any of the claims of the present application and only four of the mixtures contain one of the two compounds in the mixtures recited in the claims of the present application.[1] Thus, there is no reason for skilled artisan to combine *Buntain* compounds with a strobilurin. As such, *Buntain* does not cure the defect in *Muller* and there is no reason in *Muller* or in *Buntain* that a mixture be prepared from the combination of *Muller* and *Buntain* compounds. Thus, claims 15-17, 20, 33-40 are not rendered obvious by the teachings of *Muller* and *Buntain.* Applicants respectfully request withdrawal of the rejection.

The Office action relies on that "[b]oth formulae control insects as heliothis species, and thus it would be obvious to combine them using the same carriers at the ratio taught by Muller of 1:10 to 10:1, in order to enhance efficacy of control." Office action, page 4. *Buntain* discloses a large genus of phenyl pyrazole derivatives. *Buntain* also specifically names 101 compounds (see pages 2-4 of *Buntain*), four of which are species of the compounds of formula II as recited in the claims of the present application. According to *Buntain*, the compounds described therein are suitable for killing a whole host of pests. According to *Buntain*,

> The compounds of general formula (I) may, in particular, be used in the field of veterinary medicine and livestock husbandry and in the maintenance of public health against arthropods, helminths or protozoa which are parasitic

[1] For the Examiner's convenience, Applicants hereinwith provide in Exhibit A the structures of all the compounds named in *Buntain* as combination partners with *Buntain* compounds. Exhibit A also includes the structures of pyraclostrobin and fipronil, which are species of the genus of compounds recited in claim 15 of the present application.

internally or externally upon vertebrates, particularly warm-blooded vertebrates, for example man and domestic animals, e.g. cattle, sheep, goats, equines, swine, poultry, dogs, cats and fishes, for example Acarina, including ticks (e.g. Ixodes spp., Boophilus spp. e.g.Boophilus microplus, Amblyomma spp., Hyalomma spp., Rhipicephalus spp. e.g. Rhipicephalus appendiculatus, Haemaphysalis spp., Dermacentor spp., Ornithodorus spp. (e.g. Ornithodorus moubata and mites (e.g. Damalinia spp., Dermahyssus gallinae, Sarcoptes spp. e.g. Sarcoptes scabiei, Psoroptes spp., Chorioptes spp., Demodex spp., Eutrombicula spp.,); Diptera (e.g. Aedes spp., Anopheles spp., Musca spp., Hypoderma spp., Gasterophilus spp., Simulium spp.); Hemiptera (e.g. Triatoma spp.); Phthiraptera (e.g. Damalinia spp., Linognathus spp.); Siphonaptera (e.g. Ctenocephalides spp.); Dictyoptera (e.g. Periplaneta spp., Blatella spp.); Hymenoptera (e.g.Monomorium pharaonis); for example against infections of the gastro-intestinal tract caused by parasitic nematode worms, for example members of the family Trichostrongylidae, Nippostrongylus brasiliensis, Trichinella spiralis, Haemonchus contortus, Trichostrongylus colubriformis, Nematodirus battus, Ostertagia circumcincta, Trichostrongylus axei, Cooperia spp. and Hymenolepis nana; in the control and treatment of protozoal diseases caused by, for example, Eimeria spp. e.g.Eimeria tenella, Eimeria acervulina, Eimeria brunetti, Eimeria maxima and Eimeria necatrix, Trypanosoma cruzi, Leishmania spp., Plasmodium spp., Babesia spp., Trichomonadidae spp., Histomonas spp., Giardia spp., Toxoplasma spp., Entamoeba histolytica and Theileria spp.; in the protection of stored products, for example cereals, including grain and flour, groundnuts, animal feedstuffs, timber and household goods, e.g. carpets and textiles, against attack by arthropods, more especially beetles, including weevils, moths and mites, for example Ephestia spp. (flour moths), Anthrenus spp. (carpet beetles), Tribolium spp. (flour beetles), Sitophilus spp. (grain weevils) and Acarus spp. (mites), in the control of cockroaches, ants and termites and similar arthropod pests in infested domestic and industrial premises and in the control of mosquito larvae in waterways, wells, reservoirs or other running or standing water; for the treatment of foundations, structure and soil in the prevention of the attack on buildings by termites, for example, Reticulitermes spp., Heterotermes spp., Coptotermes spp.; in agriculture, against adults, larvae and eggs of Lepidoptera (butterflies and moths), e.g. Heliothis spp. such as Heliothis virescens (tobacco budworm), Heliothis armigera and Heliothis zea, Spodoptera spp. such as S.exempta, S.littoralis (Egyptian cotton worm), S.eridania (southern army worm), Mamestra configurata (bertha army worm); Earias spp. e.g. E.insulana (Egyptian bollworm), Pectinophora spp. e.g.Pectinophora gossypiella (pink bollworm), Ostrinia spp. such as O.nubilalis (European cornborer), Trichoplusia ni (cabbage looper), Pieris spp. (cabbage worms), Laphygma spp. (army worms), Agrotis and Amathes spp. (cutworms), Wiseana spp. (porina moth), Chilo spp. (rice stem borer), Tryporyza spp. and Diatraea spp. (sugar cane borers and rice borers), Sparganothis pilleriana (grape berry moth), Cydia pomonella (codling moth), Archips spp. (fruit tree tortrix moths), Plutella xylostella (diamond back moth); against adult and larvae of Coleoptera (beetles) e.g.Hypothenemus hampei (coffee berry borer), Hylesinus spp. (bark beetles), Anthonomus grandis (cotton boll weevil), Acalymma spp. (cucumber beetles), Lema spp.,

> Psylliodes spp., Leptinotarsa decemlineata (Colorado potato beetle), Diabrotica spp. (corn rootworms), Gonocephalum spp. (false wire worms), Agriotes spp. (wireworms), Dermolepida and Heteronychus spp. (white grubs), Phaedon cochleariae (mustard beetle), Lissorhoptrus oryzophilus (rice water weevil), Meligethes spp. (pollen beetles), Ceutorhynchus spp., Rhynchophorus and Cosmopolites spp. (root weevils); against Hemiptera e.g. Psylla spp., Bemisia spp., Trialeurodes spp., Aphis spp., Myzus spp., Megoura viciae, Phylloxera spp., Adelges spp., Phorodon humuli (hop damson aphid), Aeneolamia spp., Nephotettix spp. (rice leaf hoppers), Empoasca spp., Nilaparvata spp., Perkinsiella spp., Pyrilla spp., Aonidiella spp. (red scales), Coccus spp., Pseucoccus spp., Helopeltis spp. (mosquito bugs), Lygus spp., Dysdercus spp., Oxycarenus spp., Nezara spp.; Hymenoptera e.g. Athalia spp. and Cephus spp. (saw flies), Atta spp. (leaf cutting ants); Diptera e.g. Hylemyia spp. (root flies), Atherigona spp. and Chlorops spp. (shoot flies), Phytomyza spp. (leaf miners), Ceratitis spp. (fruit flies); Thysanoptera such as Thrips tabaci; Orthoptera such as Locusta and Schistocerca spp. (locusts) and crickets e.g. Gryllus spp. and Acheta spp.; Collembola e.g. Sminthurus spp. and Onychiurus spp. (springtails), Isoptera e.g.Odontotermes spp. (termites), Dermaptera e.g. Forficula spp. (earwigs) and also other arthropods of agricultural significance such as Acari (mites) e.g. Tetranychus spp., Panonychus spp. and Bryobia spp. (spider mites), Eriophyes spp. (gall mites), Polyphagotarsonemus spp.; Blaniulus spp. (millipedes), Scutigerella spp. (symphilids), Oniscus spp. (woodlice) and Triops spp. (crustacea); nematodes which attack plants and trees of importance to agriculture, forestry and horticulture either directly or by spreading bacterial, viral, mycoplasma or fungal diseases of the plants, root-knot nematodes such as Meloidogyne spp. (e.g. M. incognita); cyst nematodes such as Globodera spp. (e.g. G. rostochiensis); Heterodera spp. (e.g. H. avenae); Radopholus spp. (e.g. R. similis); lesion nematodes such as Pratylenchus spp. (e.g. P. pratensis); Belonolaimus spp. (e.g.B. gracilis); Tylenchulus spp. (e.g. T. semipenetrans); Rotylenchulus spp. (e.g. R. reniformis); Rotylenchus spp. (e.g. R. robustus); Helicotylenchus spp. (e.g. H. multicinctus); Hemicycliophora spp. (e.g. H. gracilis); Criconemoides spp. (e.g. C. similis); Trichodorus spp. (e.g. T. primitivus); dagger nematodes such as Xiphinema spp. (e.g. X. diversicaudatum), Longidorus spp. (e.g. L. elongatus); Hoplolaimus spp. (e.g. H. coronatus); Aphelenchoides spp. (e.g. A. ritzema-bosi, A. besseyi); stem and bulb eelworms such as Ditylenchus spp. (e.g. D. dipsaci).

Buntain, pages 4-5 (underlining added). Although *Buntain* contains synthetic procedures of a large number of compounds, biological test data for the compounds are more limited and not convincing. For example, only four of the many divergent pests listed above were tested against the 101 specifically named *Buntain* compounds. Of the four organisms against which the compounds were tested, a significant number of *Buntain* compounds showed some activity against only one of them. Against the remaining three pests tested, fewer than seven of the 101 compounds were shown to have any activity. Considering the biological diversity of the organisms listed above and the unpredictability of the art, the skilled artisan would

have no reason to believe that *Buntain* compounds would be active against all the pests listed in the document. As such, the skilled artisan would only consult with the data provided as to what the *Buntain* compounds may be useful for and there is no reason for him/her to believe that *Buntain* compounds were effective against all the organisms listed above.

Muller also includes Heliothis virescens in a list of pests that covers more than two columns of the patent as one of the many possible pests that the *Muller* compounds may be effective against. See col. 28, line 54 to col. 31, line 19. However, *Muller* does not provide any evidence that any the 574 compounds disclosed therein (or any of the other many more possible compounds that the genus in *Muller* covers) is effective against Heliothis virescens. Considering the biological diversity of the organisms listed in *Muller* and the unpredictability of the art, the skilled artisan would have no reason to believe that *Muller* compounds would be active against all the pests listed in the document.

Even if *Muller* compounds were combined with *Buntain* compounds, the number of possible choices is staggering. *Muller* specifically discloses 574 compounds (see Tables A and B) including species of the compounds of formula I recited in the claims of the present application. *Buntain* specifically discloses 101 compounds. Combining only the compounds that were specifically disclosed by the two references leads to over 57,000 possible binary combinations. 57,000 choices cannot be what the U.S. Supreme court meant when it asserted in KSR, "[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp." Although the meaning of "finite" in the context of KSR has not been adequately addressed by the Federal the Federal Circuit, the Court in Ortho-McNeil Pharm. v. Mylan Labs, 520 F.3d 1358 (Federal Cir. 2008) asserted that "[t]he passage above in KSR posits a situation with a finite, and in the context of the art, small or easily traversed, number of options that would convince an ordinarily skilled artisan of obviousness." Thus, the combination of *Muller* and *Buntain*, even if permissible, does not render the claims of the present application obvious.

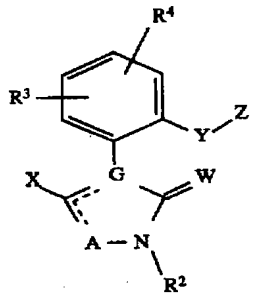
Even if *Muller* and *Buntain*, singly or in combination, were to suggest a combination of a compound of formula I and a compound of formula II as recited in the claims of the present application, the observed performance of the combination would unexpectedly be superior to what the skilled artisan would have expected. Enclosed as Exhibit B is a Declaration by Dr. Jürgen Langewald, as expert in the field of insecticide screening, which

demonstrates that control efficacy of the mixture are more than what the skilled artisan would have expected from the efficacy of individual components. Thus, the use of the combination to control pests is unobvious of the combined teachings of *Muller* and *Buntain*. Applicants respectfully request withdrawal of the rejection.

Rejections under 35 U.S.C. § 103 over Muller and Buntain in view of Brown

The Office Action rejected claims 15-17, 20, 33-40 under 35 U.S.C. §103(a) for being obvious over *Muller* and *Buntain* in view of U.S. Patent No. 5,747,516 (Brown). Applicants traverse the rejection.

As discussed above, claim 15 of the present application is directed to a mixture for crop protection, comprising a carbamate derivative of the formula I at least one compound of the formulae II, which are insecticides. *Brown* discloses dihydroisoxazoles, dihydroisothiazoles, dihydropyrazoles, dihydrothiazoles and dihydroimidazoles of formula:



which can be mixed with further pesticides. *Brown* compounds are not structurally related to compounds of formula I or II as recited in the claims of the present application—*Brown* compounds are related to a different class of pesticides. Indeed, unlike any of the compounds encompassed by the claims of the present application, the five membered heterocyclic ring of *Brown* compounds contains a carbonyl or thiocarbonyl group (>C=W group where W=O or S). Moreover, unlike the compounds of the present application, the *Brown* heterocycle does not contain an N-N group in which one of the two N atoms is directly bonded to the phenyl ring. In addition, the substitution pattern of the phenyl ring is completely different. Thus, *Brown* compounds are unrelated to the compounds recited in the claims of the present application.

With regard to combinations, *Brown* discloses that

> Compounds of this invention can also be mixed with one or more other insecticides, fungicides, nematocides, bactericides, acaricides, semiochemicals, repellants, attractants, pheromones, feeding stimulants or other biologically active compounds to form a multi-component pesticide giving an even broader spectrum of agricultural protection. Examples of other agricultural protectants with which compounds of this invention can be formulated are: insecticides such as acephate, avermectin B, azinphosmethyl, bifenthrin, biphenate, buprofezin, carbofuran, chlordimeform, chlorpyrifos, cyfluthrin, deltamethrin, diazinon, diflubenzuron, dimethoate, esfenvalerate, fenpropathrin, fenvalerate, fipronil, flucythrinate, flufenprox, fluvalinate, fonophos, isofenphos, malathion, metaldehyde, metha-midophos, methidathion, methomyl, methoprene, methoxychlor, monocrotophos, oxamyl, parathion-methyl, permethrin, phorate, phosalone, phosmet, phosphamidon, pirimicarb, profenofos, rotenone, sulprofos, terbufos, tetrachlorvinphos, thiodicarb, tralomethrin, trichlorfon and trifumuron; fungicides such as benomyl, blasticidin S, bromuconazole, captafol, captan, carbendazim, chloroneb, chlorothalonil, copper oxychloride, copper salts, cymoxanil, cyproconazole, dichloran, diclobutrazol, diclomezine, difenoconazole, diniconazole, dodine, edifenphos, epoxyconazole fenarimol, fenbuconazole, fenpropidine, fenpropimorph, fluquinconazole, flusilazol, flutolanil, flutriafol, folpet, furalaxyl, hexaconazole, ipconazole, iprobenfos, iprodione, isoprothiolane, kasugamycin, mancozeb, maneb, mepronil, metalaxyl, metconazole, myclobutanil, neo-asozin, oxadixyl, penconazole, pencycuron, phosethyl-Al, probenazole, prochloraz, propiconazole, pyrifenox, pyroquilon, sulfur, tebuconazole, tetraconazole, thiabendazole, thiophanate-methyl, thiuram, triadimefon, triadimenol, tricyclazole, uniconzole, validamnycin and vinclozolin; nematocides such as aldoxycarb, fenamiphos and fosthietan; bactericides such as oxytetracyline, streptomycin and tribasic copper sulfate; acaricides such as amitraz, binapacryl, chlorobenzilate, cyhexatin, dicofol, dienochlor, fenbutatin oxide, hexythiazox, oxythioquinox, propargite and tebufenpyrad; and biological agents such as Bacillus thuringiensis and baculovirus.

Brown, col. 60, line 37 to col. 61, line 11 (emphasis added). *Brown* specifically discloses over 1800 compounds as compounds of "the invention." The passage quoted above lists over 100 compounds, leading to over 180,000 binary mixtures between *Brown* compounds and the "one or more other insecticides, fungicides, nematocides, bactericides, acaricides, semiochemicals, repellants, attractants, pheromones, feeding stimulants or other biologically active compounds to form a multi-component pesticide" as suggested by *Brown*. None of the 180,000 or the numerous more ternary mixtures that can be prepared from *Brown* compounds and the "one or more other insecticides . . ." that *Brown* suggests encompasses any of the mixtures recited in the claims of the present application. All of the hundreds of thousands (if not millions) of combinations that may be prepared that may contain fipronil, and thiophanate-methyl will also contain a *Brown* compound. Because *Brown* compounds are

structurally unrelated to compounds of formula I and II, the claims of the present application cannot read any of the mixtures that can be prepared from *Brown* compounds with the other compounds described in *Brown* as possible combination partners.

Brown specifically tested 51 compounds against six organisms. The number of possible tertiary mixtures (one of which containing fipronil, and thiophanate-methyl) that can be prepared from any one of the 51 compounds *Brown* specifically tested with the other combination partners that *Brown* disclosed are in the tens of thousands. In addition, the heterocycle of all the 51 compound *Brown* tested are either isoxazolyl or 1,2,4-triazolyl. In contrast, compounds of formulae I and II as recited in the claims of the present application do not contain such a hetercyle-- rather, they contain pyrazolyl hetercycle. Thus, none of the tens of thousands of ternary mixtures that can be prepared from one of the compounds Brown tested (which ever of the 51 compounds that stands out) with two of the more than 100 compounds that Brown discloses as combination partners is encompassed by the claims of the present application. Moreover, *Brown* compounds are completely unrelated to *Muller* and *Buntain* compounds. Thus, *Brown* does not cure the defect in *Muller* and *Buntain*. As such, claims 15-17, 20, 33-40 are not obvious over *Muller* and *Buntain* in view of *Brown*. Applicants respectfully request withdrawal of the rejection.

Obviousness-Type Double Patenting Rejection

The office action provisionally rejected claims 15-18, 22, 23, 26, 29, 32, 35, and 38 on the grounds of nonstatutory obviousness-type double patenting over the claims of U.S. Patent Application No. 12/524,137. Applicants respectfully request that the rejection be withdrawn in this application, which is the first-filed application. Since the present claims are found allowable, the Examiner should assess whether the rejection could then be applied to the later-filed U.S. Patent Application No. 12/524,137.

For the foregoing reasons, claims 15-40 are considered allowable. A Notice to this effect is respectfully requested. If any questions remain, the Examiner is invited to contact the undersigned at the number given below.

The Director is hereby authorized to charge any appropriate fees that may be required by this paper, and to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

BRINKS HOFER GILSON & LIONE

Date: September 14, 2010

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